

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/730,484	FARIS, SADEG M.	
	Examiner <i>Dan J. Petkovsek</i>	Art Unit	
	Daniel J. Petkovsek	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to drawings filed April 3, 2006.
2.  The allowed claim(s) is/are 1-7, 9, and 11-16.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 3/29/06
4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

*Akmal*  
**AKM ENAYET ULLAH**  
**PRIMARY EXAMINER**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended (added) as follows:

Claim 9. (Currently Amended) An optomechanical switch for transmitting an optical beam comprising:

a substrate;  
a signal source capable of transmitting a radiation signal;  
a light movable liquid crystal (LMLC) on said substrate positionable between a first position and second position upon activation with said signal source; and  
a micromirror hinged to said LMLC.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2874

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Petkovsek  
May 4, 2006

**DETAILED ACTION**

This office action is in response to the amendment filed March 6, 2006. In accordance with the amendment, claims 1, 7, 9, and 11 have been amended; claims 8 and 10 have been canceled; while new claims 13-16 have been added. The amendments to the specification and the drawings filed April 3, 2006 have been acknowledged.

Claims 1-7, 9, and 11-16 are pending.

***Information Disclosure Statement***

1. The prior art documents submitted by Applicant in the Information Disclosure Statements filed on March 29, 2006, have been considered and made of record (note attached copy of forms PTO-1449).

***Drawings***

2. The drawings were received on April 3, 2006. These drawings are acknowledged.

***Terminal Disclaimer***

3. The terminal disclaimer filed on March 16, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of the 10/941,294 US Patent Application has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Allowable Subject Matter***

4. Claims 1-7, 9, and 11-16 are allowed. The following is an examiner's statement of reasons for allowance: the relevant prior art of record does not teach or reasonably suggest a specific opto-mechanical switch in which a light movable liquid crystal (elastomer) is activated *by a light signal*, in which a light source causes movement of the LMLC between two positions to actuate the switching functionality (claim 1). The prior art of record teaches the use of liquid crystals to activate switches, but only in which electrical signals activate the liquid crystal, not in which *light itself* causes movement (which causes the change in position of the switching function). Regarding claim 9, the relevant prior art does not teach or reasonably suggest the further embodiment in which a micromirror is hinged to the LMLC, so that the switching capability occurs due to the movement of the LMLC based upon the stimulus upon the LMLC.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Daniel Petkovsek  
May 4, 2006

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PRIMARY EXAMINER